

BIAS AGAINST 'DIRTY' MANUFACTURING IS BARRIER TO GOOD JOBS

By **Stephanie Overman**

Good manufacturing jobs in the United States may be going unfilled because of bias against an outdated image of grimy factories and unskilled, blue-collar labor.

Since January 2010, the U.S. economy has created nearly 500,000 new jobs in manufacturing, according to the Employment and Training Administration. And a 2012 Society for Human Resource Management survey found that 75 percent of manufacturing companies were hiring, up from 50 percent two years before. But 67 percent of the manufacturing companies that were hiring said they were having difficulty recruiting for specific jobs.¹

A critical problem, according to Greg Dellinger, director of recruiting for AAR Corp. in Wood Dale, Illinois, is that students, parents, guardians and educators tend to view manufacturing jobs as dirty, dangerous and repetitive. Many times, he says, the parents and grandparents of today's students "have had a sideways experience with manufacturing." Their experiences from 20 or 30 years ago "can't be further from the truth" today at companies like AAR that need employees with advanced-manufacturing skills.

Far from being dirty, the company's aviation maintenance and repair facilities are clean, well lit and safe, Dellinger says. "They have to be. We don't want the risk

of injury or to miss a deadline because inventory was damaged. We're dealing with products and services that defy gravity. ... It has to be done right."

The manufacturing industry needs to recognize that it has a problem with perception, agrees Fred Wentzel, executive vice president of the National Council for Advanced Manufacturing. "In the minds of a lot of middle class kids and their parents who aspire to have their children move into a 'professional setting,'" only a four-year liberal arts education "offers respectability and a good salary."

Many low-paying, entry-level factory jobs were shipped overseas years ago, and U.S. manufacturing jobs today tend to



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“require special skills, knowledge or experience,” he says, and pay well as a result.

“Unless the manufacturing sector begins to build relationships ... the problem [of misperception] will persist,” Wentzel says, adding that these relationships need to be built “at the 10th, 11th, 12th grades,” as well as at the college level.

Around the country, some manufacturing companies “are heeding the advice to go out and build relationships,” Wentzel says. “They are helping faculty understand that there are certain skill requirements” in the manufacturing sector.

But community colleges tend to focus on the “professional” also, according to Wentzel. “Half or more of community

colleges see themselves as avenues into four-year schools ... they see themselves as preparers for entry into liberal arts programs. They do not see themselves as training centers for local industry.”

Some parts of the country, the Midwest, for example, offer more access to technical programs, he adds.

Telling the New Story

The Manufacturers Association of Maine (MAME) is working to change old notions of manufacturing and “to tell the story of what manufacturing is today in 2013,” according to Lisa G. Martin, executive director of the association.

In Maine, the memories of dusty mills

and dirty factories “run pretty deep,” she says. “When you say ‘textile,’ people automatically think of a huge factory with sewing machines; but that typically is not going on in the States now.”

Most of the traditional cut-and-sew work is done overseas, but Maine does have some textile companies making high-tech products, Martin says. “There are advanced-textile companies that are using traditional fibers to make clothing used for wound care that helps in the healing process.”

And there are textile companies that have produced materials for the Mars Exploration Rovers, she adds. This type of manufacturing requires “clean rooms”

Breaking Barriers

and trained workers.

Shipbuilding is another traditional Maine industry that requires employees with advanced skills, not just in wood-working and cabinetmaking.

Today, they also need people trained to work with new composite technology. “The composite sector went from old resin and wood, layering wood with glue, to cold-mold injection. Hands don’t touch the material. In the last five years it’s changed to a whole new world,” Martin says.

In January, MAMe launched a new project to reach out to students across the state to try to interest them in careers or jobs in manufacturing. The project is funded in part by the Maine Department of Economic and Community Development.

Part of the MAMe’s goal, she says, is to connect educators and the business community. “I don’t think educators and guidance folks have a clear idea of wage information and the skill sets needed in

the highly computerized, highly technological setting in the majority of manufacturing facilities,” Martin says. Students “need to know computers. They need to have [the] ability to work with design teams and machinists and engineers.”

To get the word out, MAMe offers tours of companies, internships and opportunities to shadow employees in advanced-manufacturing jobs.

“I [visited] the Mid-Maine Technical Center, telling them about opportunities. We want to be able to step in and help make these connections,” she says, because even students and faculty at technical institutions aren’t aware of all the possibilities. “As a result of [that] meeting, we have a tour set up so high school students can get a look at how you build ships.”

MAMe conducts assessments to determine the most common types of skills needed at the various companies—blueprint reading, for example—then offers training to help develop those skills.

“We’re looking at where the gaps are,” she says, adding that it’s especially important to help small manufacturing businesses because they often do not offer enough jobs to qualify for their own government-training grants.

Wooing Potential Workers

At AAR, “We try to woo parents, students, educators, guidance counselors,” Dellinger says. The wooing extends beyond the high school level to include middle schools that feed into the high schools. It also extends to members of civic organizations and the clergy who may influence young people in their career choices.

“We need to position manufacturing so people see that there are opportunities there in ‘wings and things,’”—aviation, automotive and other industries, he says, noting that with so many in the current workforce retiring, 650,000 manufacturing jobs will open up over the next 15 to 20 years.

A Sprinkle of Pixie Dust

AAR relies on a sprinkling of “pixie dust” to help persuade students, their parents and teachers that manufacturing jobs aren’t what they used to be.

Last fall, AAR held one of its “exposure events” for Miami Central High School students at Miami International Airport, where the company has a repair station for commercial aircraft and an off-airfield repair and maintenance facility for landing gear.

For these events AAR hires motor coaches, not school buses, to take students to its facilities. “They want to think they’re rock stars,” says Greg Dellinger, director of recruiting. So the company treats them like stars, with a big welcome from members of AAR’s “Great Place to Work” teams.

At an event, “I’m there. I’m passing out American flags. We take them to the conference room that is ready with food. High school students are hungry all the time,” he says.

Then there’s a series of presentations—that’s where what Dellinger calls the pixie dust comes in: “We invite the deputy mayor and sports stars from the Miami area,” to talk with the students.

There are no hard-sell pitches during the presentations he adds, because “young people are sold to all the time” and don’t respond well to that approach.

After the presentations, AAR representatives take groups of students through the facilities, along with a videographer to record the event for the participants—and for promoting skilled manufacturing jobs to other groups. The tour is “loud, exciting. It’s very different,” Dellinger says. “We have

senior workers who are well trained and well educated involved in the tours.”

Later, after more food, there’s an overview and a question-and-answer session. “We have prizes for students who ask questions. A T-shirt can take you a long way” in boosting student enthusiasm.

AAR’s partnership with each school continues after an exposure event, according to Dellinger. Next up at Miami Central is an aviation career fair in the school gym.

And after every event, “We always tell the students: ‘If you are interested, write us. Show us your enthusiasm,’” Dellinger says. He admits that few students follow up, but when they do show the enthusiasm that AAR is looking for “they are the ones who are rewarded” with internships and other opportunities.

At AAR, “I need mechanics, welders, radio and electronics people” for commercial aircraft maintenance, he says. The company hosts what it calls exposure events “to prime the pump with the audience, to show them what we do as a company.” See sidebar.

At these events, “We make it exciting. We show them the equipment, the dials and controls” and how skilled—and significant—the work is. For example, “We show them how small one-ten-thousandth of an inch is. When an airplane comes together, those details are extremely important.”

Dellinger says that as a parent of children in the Millennial Generation, “I see what they are capable of” and what interests them. “We show them that the skill sets are a great fit and are in direct demand. Young people love the technology,” and once they see it, they recog-

nize how similar it is to the hand-held games they play. “Even robots need to be maintained, repaired and overhauled. It’s exciting,” he says.

And when the company advertises for jobs, it doesn’t fall back on staid classified ads. “We have our own YouTube page. We have videos of the jobs that are out there. We use music. Being visual is important,” he says.

Dellinger also likes to emphasize to potential employees how far they can advance within the industry by continuing their education and earning certifications.

“I’m looking for individuals who are switched on, who work hard, who try to get better every day. We identify those individuals,” hire them and help them with tuition reimbursement. “We show them the sky is the limit.”

In return, the payoff for AAR is a pipeline of skilled workers, according

to Dellinger. “We never want to turn away business because we don’t have a switched-on workforce.” ■

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Endnote

1. The Society for Human Resource Management, “The Ongoing Impact of the Recession: Manufacturing Industry,” April 4, 2012, www.shrm.org/research/articles/pages/theongoingimpactoftherecession%E2%80%9494manufacturingindustryshrpmoll.aspx.



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